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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
88/795,592	02/06/97	CRAWFORD	H A-63739/WSG

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EXAMINER

JEAN, F

ART UNIT

2781

PAPER NUMBER

6

DATE MAILED: 07/10/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/795,592

Applicant(s)

Crawford et al.

Examiner

Frank & Jean

Group Art Unit

2781

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on 02/06/97.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-17 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☒ Claim(s) 6-12, 13-15 is/are allowed.
- ☒ Claim(s) 1-4, 16-17 is/are rejected.
- ☒ Claim(s) 5 is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of References Cited, PTO-892
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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Claims 1-17 are presented for examination.

Drawings

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Oath/Declaration

It does not identify the citizenship of each inventor.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-4, 16-17, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirabayashi et al. (Hereinafter Hirabayashi) patent no. 4,949,083 in view of Carlson et al. (Carlson) patent no. 5,542,046).

As per claim 1, Hirabayashi teaches a method of managing digital resources in a digital system, said method comprising the steps of : matching a selected token value in a free-buffer-queue to an incoming digital resource request (step 110 fig 4, col. 7 lines 30-31), moving said selected token value to a valid-request-queue (steps 110-120, fig.4 col. 7 line 29), removing said selected token value from said valid-request-queue to allow a digital agent in said digital system to process said incoming digital resource request (step 130 fig. 4, col. 7 lines 50-51), returning said selected token to said free-buffer-queue (subsequent to step 190, fig. 4 lines 32-33). Hirabayashi does not explicitly disclose a reserved token values and a valid-request-queue. However, Carlson teaches reserved token values and a valid-request-queue (525, 350, 300 fig 3 col. 6 lines 37-40). It would have been obvious to one ordinary skill in the art at the time of the invention to combine Carlson teaching to Hirabayashi because reserved token value would indicate an available space or slot while valid-request-queue would stress on readiness thereby speeding up communication process and improving the system reliability.

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As per claim 2, Hirabayashi teaches a moving step that includes a step of moving a packet of data associated with said incoming digital resource request into a memory location corresponding to said selected token value (step 130, fig 4 col. 7 lines 50-53).

As per claim 3, Hirabayashi moving step includes the step of moving said incoming digital resource request from said memory location to allow said digital agent to process said incoming digital resource request (step 130, fig 4 col. 7 lines 50-53).

As per claim 4, neither Hirabayashi nor Carlson explicitly detail a step of blocking an incoming digital resource request when said free-buffer-queue is empty. It would have been obvious to one ordinary skill in the art at the time of the invention to incorporate a step of blocking an incoming digital resource request when said free-buffer-queue is empty into their system because it is common in the art to indicate a resource is not available to accept a packet thereby preventing a system delay.

As per claims 16, 17, Hirabayashi teaches a method of managing digital resources in a digital system, said method comprising the steps of : matching a selected token value in a free-buffer-queue to an incoming digital resource request (step 110 fig 4, col. 7 lines 30-31), moving said selected token value from said incoming digital resource request to a digital agent for

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processing (step 130, 110-120, fig. 4, col. 7 lines 29, 50-51), returning said selected token to said free-buffer-queue (subsequent to step 190, fig. 4 lines 32-33). Hirabayashi does not explicitly disclose reserved token values and returning a selected token to a free-buffer-queue with a second processor. However, Carlson teaches reserved token values and returning a selected token to a free-buffer-queue with a second processor (100, 105, fig 1; 525, 350, 300 fig 3, col. 6 lines 37-40). It would have been obvious to one ordinary skill in the art at the time of the invention to combine Carlson teaching to Hirabayashi because reserved token values would indicate an available space or slot in a buffer/memory while the processors increasing the system performance and storage capacity thereby improving communication system process.

Allowable Subject Matter

5. Claim 5, is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 6-12, 13-15 are allowed.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Hirabayashi (4,949,083) discloses a communication system with a plurality of transmission units.

Carlson (5,542,046) discloses a server entity that provides secure access to its resources through token validation.

Graziano et al. (5,758,075) discloses a communication adapter that receives and transmits simultaneously packet and/or isochronous data between a network and a host bus system.

Meaney et al. (5,564,062) disclose a resource arbitration system with resource checking and lockout avoidance.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz B. Jean whose telephone number is (703) 305-3970. The examiner can normally be reached on Monday thru Friday from 8:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-AI An, can be reached on (703) 305-9678. The fax phone number for this Group is (703) 308-5358.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [Meng-AI.An@uspto.gov].

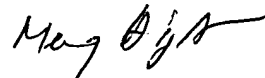
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All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-9600.



Frantz B. Jean



MENG-AI T. AN
PRIMARY EXAMINER

July 4, 1998